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Observations of the World Bank of the report on the evaluation of the International Comparison Programme

Note by the Secretary-General

The Secretary-General has the honour to transmit to the Statistical Commission, at the request of the World Bank, its observations on the report on the evaluation of the International Comparison Programme (E/CN.3/1999/8), which was prepared for the Commission by a consultant; the observations are contained in the annex.

* E/CN.3/1999/1.

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Annex

World Bank observations on the report on the evaluation of the International Comparison Programme

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I. Introduction

1. The present observations represent the World Bank's response to the report on the evaluation of the International Comparison Programme (ICP) (E/CN.3/1999/8), which was prepared by a consultant, Jacob Ryten. The Bank welcomes the report and its strong endorsement of ICP. It is also in broad agreement with many of the report's recommendations.

2. Pending the outcome of the Statistical Commission at its thirtieth session in March 1999, the Bank is continuing to move ahead to complete the final stages of the current phase of ICP at the global level and initiating activities for the next round. Through both its research and the different lessons learned from drawing on the experience of a much expanded range of countries, the Bank is addressing some of the methodological and operational issues that have been raised over the recent past. In general, the Bank has a fair degree of confidence in the results for private consumption at the levels of aggregation where such numbers are mostly used. It has received encouraging evidence from several sources that information collected on outlays and prices for ICP have contributed not only to more robust national accounts estimates of personal expenditure but also to more meaningful measures of poverty in a number of countries.

3. On questions of capital formation and public consumption, it is recognized there is more scope for potential error and bias. The Bank is continuing to investigate alternative ways to improve these sector estimates and to take into better account quality differences between items and countries. It is looking again at the methodology for compiling estimates of construction, and preparing easier component and activity specifications rather than trying to identify and cost prototypical buildings and projects. From a practical perspective, the Bank has found that where the pricing of construction "models" has been handed out to independent private firms of quantity surveyors, it is not always easy to validate and cross-check the resulting, often highly detailed, estimates. In some cases also where subsequent queries have been raised, it has not been possible for statistical offices to get an adequate follow-up once a contract has been completed. The Bank is anxious, therefore, to devise appropriate procedures to keep as much ICP data activity as possible within the control of statistical organizations directly, and to help to strengthen the capacity of national statistical offices to handle such work.

4. The Bank has also been working on software that will allow more automated procedures for editing and validation of primary observations, a feature that has been highlighted in the report as something essential for improving the quality of estimates.

II. Overview

5. The Bank broadly endorses the findings of the report on the evaluation of ICP. The report importantly confirms the findings of a previous international review that underlines the merits of purchasing power parity (PPP) calculations.[1] The Bank agrees with the main conclusions of both the report and the above-mentioned review that PPPs — the estimation of which is the primary objective of ICP — are vital for a wide range of important policy-related economic analysis. It also acknowledges that without ICP, the System of National Accounts (SNA) is incomplete (see sect. III.B below). The Bank further accepts the report's observations on the need for improved timeliness, increased reliability and better quality in the PPP estimates. While the Bank might wish to take issue with the report on a number of questions of detail, it believes that it is important to retain a central coordination of the global ICP programme, and that this managerial function should be significantly strengthened, for which increased resources are required.

III. The main concern: credibility

6. The report argues that ICP results are facing a "credibility gap". The Bank identifies three key factors that impinge on the credibility of the numbers: conceptual relevance; methodological framework; and the data management process, or more specifically, the way that data collection procedures are implemented to compile the basic information. This relates to the familiar basic questions of whether the concept is correctly defined and meaningful, whether the statistical methodology identified fits the conceptual definitions and model selected, and whether the statistics collected map both reality and the conceptual and methodological foundations.

A. Conceptual relevance

7. Inter-area price information at both the national and international levels is essential to a proper understanding and analysis of real economic differences in a spatial context. Just as in comparisons over time it is necessary to adjust current price series to a constant price basis to measure real quantum change, so it is equally necessary in making

comparisons of quantum levels across countries to convert current values in local currencies to a comparable standard value and currency numeraire. PPPs are meaningful because they equalize the existing differences in price levels between countries at current exchange rates. Direct comparisons based on current exchange conversions are not measures of real quantum differences. They are, in any case, highly unstable from one year to the next for many countries. Exchange rate comparisons are also subject to variations in both the numeraire currency (usually taken as the United States dollar) and the comparator country.

8. Conceptually, PPPs are also required when analysing differences between key sectors or commodity expenditures across countries, or even indeed within a country. For measuring real quantity differences, there is no alternative. One way (via expenditure outlays) or another (through production values), price-level differences must be eliminated to provide robust international comparisons of levels of well-being and output. It must be clearly stated that on this point, there is unanimous agreement among researchers and theoreticians; proper cross-country comparisons can only be made once values have been adjusted to eliminate differences in price levels using purchasing power parities. It is of more than passing note that in January 1999, at a formal gathering in New York, the American Economic Association will induct Professors Robert Summers and Alan Heston as distinguished fellows for their important contributions to the understanding of international comparisons. Some years previously, Professor Irving Kravis was similarly honoured for his pioneering work in the field of ICP. The 1998 Kuznets lecture, given in November 1998 by Angus Maddison, was devoted to the same topic.

B. Methodological framework

9. What is at stake is "how best can these PPP calculations be made?" and "what level of accuracy are analysts prepared to accept?". Methodologically, there are two practical approaches to calculating PPPs and to making robust cross-country comparisons. These are, respectively, the expenditure approach and the real product (value added) method. It is generally acknowledged that a comparative income approach is not feasible because of the inability to separate out the implicit unit "price" and quantity elements, especially in the case of gross or net operating surplus.

10. The Bank believes there are merits in looking at both expenditure and real product PPP estimates because they meet different analytical requirements, such as resources, levels of living and productivity analysis. But having provided the initial funding and support for the Groningen (Maddison) real production comparisons based on the United States of America, the Bank, along with the Statistical Office of the European Communities (Eurostat) and OECD, are all committed to the expenditure-based ICP method, because it provides a conceptually sound and practically feasible way to generate appropriate and operationally meaningful PPPs across all countries on a regular basis in a reasonably cost-effective manner. This method, originally devised by Milton Gilbert and Irving Kravis and pioneered by the University of Pennsylvania, permits analysts and researchers to utilize a great deal more detailed expenditure and price data at levels below the main macroeconomic aggregates. Such information is especially useful for capturing, at the country level, the relative importance of expenditures in key sectors of the economy that have a direct policy significance. These include, for example, health and education outlays vis-à-vis total household expenditures, the significance of investment in machinery and equipment vis-à-vis construction, and outlays on food and, say, bread and staples etc. as a means to understanding relative well-being.

11. The "ideal" process for aggregating country-level data into a regional and global comparison is not agreed, and depends at least in part on the objective function of the exercise. The Bank has developed sophisticated software tools, however, to allow any existing aggregation procedure and choice of preferred index number formula to be applied to the raw data.

12. ICP is an integral part of SNA, which lays a heavy emphasis on the importance of harmonization and comparability which are the primary concerns common to any international framework. The 1993 SNA, endorsed by all the major international agencies, including Eurostat, the International Monetary Fund (IMF), OECD, the United Nations and the World Bank, is part of a global effort to bring about consistency in the definition and classification of macroeconomic activity to enhance comparability between nations. In this respect, SNA dwells at some length on the question of how economic values expressed in current national prices can be adjusted for inflation over time, as well as for price-level differences between countries.

C. Data management process

13. It is on the more practical questions of data quality that the report sounds its main clarion note; it argues that many of the lower-level expenditure comparisons are unreliable, and that the main reason for this is the poor management and

supervision of country-level statistical work in the ICP area. Here, there is no quick and easy solution to the problem.

14. To improve country capacity and awareness, the Bank has funded and organized many hands-on technical seminars and workshops in all the regional commissions. These were designed specifically to strengthen the reliability of country-level work on ICP. The Bank has also supported similar work conducted by other agencies, e.g., the field activities of the European Centre for World-Wide Cost of Living Comparisons, with Eurostat assistance, in the Africa region. Furthermore, it has provided individual country-level funding to ensure that relevant price and expenditure surveys to generate ICP information and to improve prices and national accounts data in general were carried out. The Bank, nevertheless, can do little other than agree with the report's findings that the task of data-quality supervision has been less than adequately carried out in many cases. The Bank has identified a number of instances where less than satisfactory attention was paid by national statistical offices to verifying and validating the basic data on which, subsequently, PPP calculations had to be made at the regional level. One important reason for this — and for the existence of observed inconsistencies in the micro-level results — was the operational separation of the data-collection process from the (regional) aggregation process. Under existing procedures, weaknesses in the detailed estimation function at the country level can only be fully discovered and evaluated at a higher level of aggregation because it is here that, of necessity, one country's micro-data sets must be compared with those of other countries at a similar stage of development.

IV. Current Bank efforts to improve methods

15. The Bank has defined guidelines, has recommended good practices both for data collection and for calculating annual national average prices for ICP items, and has outlined actual operational procedures. It has also helped to set out agreed timetables. But the Bank has faced both resource constraints and political limitations to the exercise of a more in-depth surveillance, and the strict data-quality control and external supervision of participating countries' statistical practices.

16. Since an important component of ICP is capacity-building in the areas of price collection and analysis and in the expenditure measurement of gross national product (GNP), there has clearly been some reluctance on the part of the Bank to interfere at the detailed level. There are important reasons not to micromanage the exercise or to try to "fix" every potential data-specification problem. The Bank and other agencies that play key roles in developing multilateral PPPs cannot get too deeply involved in the internal control and supervision of national basic data collection in participating countries. This task falls under the responsibility of national statistical offices, and the sustainability of the statistical activity and data-collection process must rely on the capacity of national organizations to manage their statistical work effectively.

17. For countries that have been involved in the regular ICP exercises over a number of years, a recognized "generic" data-collection process has been already put in place. New countries joining the system are invited to bring to the table their own special interests and characteristics, yet must understand also the need to assimilate existing practices and fulfil them as faithfully as possible. Proper breeding, reproduction (replication), adoption and cloning are required to carry out the basic tasks consistently and in ways that encourage reliability. The use of common definitions, classifications, item diagrams, compilation manuals etc. serves to encourage a standard and more harmonized approach.

V. The Bank's assessment

18. At the macro level, the Bank believes that the mostly recently published ICP estimates are credible. They may appear intuitively difficult to accept because over a long period mindsets have been accustomed to register exchange rate-based comparisons. Users have thus been slow to grasp the true significance of PPP-adjusted numbers. As in the case of all aggregates, it is accepted the detailed lower-level expenditure comparisons are, in many cases, less robust and reliable. This is especially true where products (especially services) are difficult to specify clearly and may vary significantly in quality (for which sufficient adjustment is not made), and where annual national average prices are able to fall, quite logically, within a wide price band (as say, in the case of India or China). But the detailed measures — and there are many of them — remain necessary to ensure an ever greater consistency in the estimates derived at increasingly higher levels of aggregation. With only one important exception, the Bank has been unable to find any clear case of consistent bias either across countries or with respect to any specific item which is priced in ICP. Independent research backs up these findings. This strengthens the validity of the main estimates and overall conclusions at the macro level.

VI. Use of purchasing power parities

19. As part of a regular operational review process, the Bank is analysing the use, relevance and potential of PPP-adjusted GNP numbers as a basis for determining its resource allocation decisions. Already, at the level of poverty reduction and alleviation, PPPs are used to drive policy and development assistance decisions. Evaluation procedures related to poverty incidence rather than income per head may well became a more important guiding principle for future operational policy. Furthermore, given the new strategic development partnership between the Bank and OECD as well as the major bilateral donors, the focus of attention in the area of poverty reduction strategies is bound to grow stronger. The recent exchange rate collapse in former USSR countries and the continued financial market instability in Asia as well as much of Latin America have also increased pressure to use PPPs in the more conventionally recognized role to determine economically meaningful exchange rate "markers". Where exchange rate depreciation is associated with subsequent actual or incipient inflation, the pressure for data on prices and PPPs and how levels of living are affected will be even greater. A decision on these various interrelated issues has recently been taken by the heads of statistics of the countries in Asia in financial crisis. Other countries or areas, such as Singapore and Hong Kong Special Administrative Region of China, are following suit. In this one area alone — quite apart from the additional information that ICP can provide at the national level on trade practices, dumping, relative wage levels and cost competitiveness etc. — ICP serves an important national purpose.

VII. Funding

20. ICP depends on country-level surveys of prices and expenditure outlays. Outside OECD and former USSR countries which collect such data on a more regular basis, these surveys are conducted only once every five years. However, they represent a significant incremental cost over a country's regular statistical budget. For this reason, the Bank has provided most countries with some small cross support to help to implement this work and to conduct related studies of expenditure patterns, including the funding of regional workshops and seminars. The Bank has also tried to reduce the real resource burden of compiling such data by encouraging countries, as far as possible, to use existing consumer and retail price index information, and to work with truncated and harmonized price lists. The Bank has also supported special enquiries on construction investment prices and machinery and equipment costs. While this information is interesting and operational in its own right, it is data not normally collected by national statistical offices. Countries do not have to perform any ICP calculations, and the work of regional aggregation and global estimation falls to the international agencies. All these approaches have been adopted with the main idea in mind of minimizing the direct cost to countries themselves of generating PPP information.

21. The Bank uses a portion of its regular administrative budget for the overall management and supervision of the global ICP exercise and for exploring alternative aggregation methods. It draws on rapidly dwindling special trust fund reserves to finance supplementary regional activities and individual country studies. In this latter area, over the past few years, both IMF and the European Development Bank have made significant financial contributions to ICP, but these have been insufficient to cover the shortfall in resources, and ICP remains, as the report notes, significantly underfunded.

VIII. Conclusion

22. The Bank's overall view is that PPP work must continue, and that within the given resource envelope, ICP at a global level must be carried out as effectively and efficiently as possible. In the past, with uncertain funding, a planned approach over the usual three-year perspective for project completion has been difficult. This has undermined management plans and made supervision less effective than it should have been. But the international statistical community now needs to move forward and agree on a more systematic approach. It must decide how to set up a strong central management for ICP that will wield effective control over basic data quality.

Notes

[1] "Review of the OECD-EUROSTAT PPP Program", paper prepared by I. Castles as a consultant to the Organisation for Economic Cooperation and Development (OECD) for a meeting on the EUROSTAT-OECD purchasing power parity programme, Paris, 5 and 6 November 1997.